

## CLAIMS

1. A storage medium carrying meta-tracks of  $N$  ( $N > 1$ ) bit-rows that store content information, two adjacent meta-tracks being separated by a guard band of at least one bit-row referred to as guard band bit-row, at least one guard band bit-row storing non-content information.
2. A storage medium as claimed in claim 1 wherein said non-content information comprises clock data to be used for reading said content information from said storage medium.
3. A storage medium as claimed in one of claims 1 or 2 wherein said non-content information comprises control data to be used for reading/writing content information from/onto said storage medium.
4. A device for reading a storage medium that carries meta-tracks of  $N$  ( $N > 1$ ) bit-rows, two adjacent meta-tracks being separated by a guard band of at least one bit-row referred to as guard band bit-row, said device comprising:
  - an optical unit for generating at least  $N$  light spots, receiving at least  $N$  reflected light spots and generating at least  $N$  analog signals associated each to one of said reflected light spots, in order to read in parallel a meta-track and a guard band bit-row adjacent to said meta-track,
  - means for processing at least  $N$  of said analog signals in order to recover content information stored in said meta-track and non-content information stored in said adjacent guard band bit-row.
5. A device as claimed in claim 4 wherein, said non-content information comprising clock data, said processing means comprise:
  - an analog-to-digital converter for receiving at least  $N$  of said analog signals and generating at least  $N$  digital signals,

- a phase-locked loop circuit for receiving one of said digital signals that is associated to a light spot that is at least partly reflected by said guard band bit-row such that said digital signal carries said non-content information, and for generating a clock correction signal therefrom,

- 5    - a sample rate converter controlled by said clock correction signal, for receiving N of said digital signals and for generating N corrected digital signals,  
- a first detection circuit for receiving said N corrected digital signals and for delivering N sequences of bits that correspond to said content information.

10    6.    A device as claimed in claim 5 wherein, said non-content information comprising control data, said processing means further comprise a second detection circuit for receiving said clock correction signal and deriving therefrom a sequence of bits that corresponds to said control data.

15    7.    A device as claimed in claims 5 or 6, wherein said optical unit is designed for generating a specific light spot dedicated to the reading of said guard band bit-row, and said phase-locked loop circuit receives the digital signal derived from said specific light spot.

20    8.    A device as claimed in claim 4 wherein, said non-content information comprising control data to the exclusion of clock data, said processing means comprise:  
- an analog-to-digital converter for receiving at least N of said analog signals and generating at least N digital signals,

- a sample rate converter for receiving said at least N digital signals and for generating at least N corrected digital signals,

25    - a detection circuit comprising:

a)    means for receiving N corrected digital signals and deriving therefrom a reference signal and N sequences of bits that correspond to said content information, and

b)    means for receiving one corrected digital signal that is associated to a light spot that is at least partly reflected by said guard band bit-row such that said corrected digital  
30    signal carries said control data, and deriving therefrom a sequence of bits corresponding to said control data,

- a time recovery circuit for receiving said reference signal and at least part of said N corrected digital signals, and for generating a time correction signal used for controlling said sample rate converter.